

# High School to College and Career Pathway: Secondary

Area of Study: Technology and Engineering Education



## Pathway: Project Lead the Way (National Pre-Engineering Program)

Middle School		State Requirements			High School Suggested Education Plan				College & Careers																													
7 <sup>th</sup> Grade	8 <sup>th</sup> Grade	Middle School		High School	9 <sup>th</sup> Grade Suggested	10 <sup>th</sup> Grade Suggested	11 <sup>th</sup> Grade Suggested	12 <sup>th</sup> Grade Suggested	Beyond High School																													
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts	3.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	<p>There are a number of options for education and training beyond high school, depending on your career goals.</p> <p>&gt; Certificate</p> <p>&gt; Associate degree</p> <p>&gt; Bachelor degree</p> <p>&gt; Professional degree</p> <p>&gt; On-the-job training</p> <p>&gt; Apprenticeship</p> <p>&gt; Military training</p>																													
Math 7 1.00	Pre-Algebra 1.00	2.00	Math	2.00	Elm Algebra or Applied Math 1.00	Geometry or Applied Math II 1.00	Intermediate Algebra 1.00	Pre-Calculus 1.00																														
Science .50	Science 1.00	1.50	Science	2.00	Earth Systems 1.00	Biology 1.00	Physics 1.00 or Physics with Technology 1.00	Chemistry 1.00																														
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies	2.50	World Civilizations .50	Geography for Life .50	U.S. History II 1.00	U.S. Government and Citizenship .50																														
P.E. 1.00	Health .50	1.50	P.E./Health	2.00	Participation Skills and Techniques .50	Fitness for Life. 50 / Health Education .50 Lifetime Activities or Sport .50																																
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CTE Intro 1.00	Exploring Technology .50	1.00	Career and Technical Education	1.00	<div><div>Career and Technical Education Recommended Pathway Courses</div><div>(Students may select individual courses for exploration, or complete pathway for an in-depth focus.)</div><div>CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL</div><table><thead><tr><th>Course #</th><th>Foundation Courses: (required)</th><th>Credit</th></tr></thead><tbody><tr><td>21.0120</td><td>Engineering Design, Introduction</td><td>1.00</td></tr><tr><td>21.0122</td><td>Principles of Engineering</td><td>1.00</td></tr><tr><td>21.0121</td><td>Digital Electronics</td><td>1.00</td></tr><tr><td colspan="2">Elective Courses:</td><td></td></tr><tr><td>21.0123</td><td>Computer Integrated Manufacturing</td><td>1.00</td></tr><tr><td>21.0125</td><td>Civil Engineering &amp; Architecture</td><td>1.00</td></tr><tr><td>14.0201</td><td>Aerospace Engineering</td><td>1.00</td></tr><tr><td>21.0124</td><td>Engineering Design &amp; Development</td><td>1.00</td></tr><tr><td>32.0199</td><td>Student Internship (Critical Workplace Skills)</td><td>.50</td></tr></tbody></table><div>Many Utah post-secondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional post-secondary Pathways for details.</div><div>4.00 credits for completion</div></div>					Course #	Foundation Courses: (required)	Credit	21.0120	Engineering Design, Introduction	1.00	21.0122	Principles of Engineering	1.00	21.0121	Digital Electronics	1.00	Elective Courses:			21.0123	Computer Integrated Manufacturing	1.00	21.0125	Civil Engineering & Architecture	1.00	14.0201	Aerospace Engineering	1.00	21.0124	Engineering Design & Development	1.00	32.0199	Student Internship (Critical Workplace Skills)
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<b>Get the Facts</b> Project Lead the Way is offered in over 45 states and the District of Columbia.																																						
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**Note:** For more information talk to your school counselor.

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## Pathway: Pre-Engineering (Utah Pre-Engineering Plan)

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**Sample Occupations**

- > Civil Engineer
- > Civil Engineering Technician
- > Electrical Engineer
- > Mechanical Engineer
- > Mechanical Engineering Technician

For more information on salary projections, labor market demand, and training options, visit [www.careers.utah.gov](http://www.careers.utah.gov)

### Beyond High School

There are a number of options for education and training beyond high school, depending on your career goals.

- > Certificate
- > Associate degree
- > Bachelor degree
- > Professional degree
- > On-the-job training
- > Apprenticeship
- > Military training

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